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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/091,797

03/06/2002

Barry Fruchtman

IBM 0116

8935

7590

04/25/2006

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EXAMINER

TODD, GREGORY G

ART UNIT

PAPER NUMBER

2157

DATE MAILED: 04/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Interview Summary</b>	Application No.	Applicant(s)	
	10/091,797	FRUCHTMAN ET AL.	
	Examiner	Art Unit	
	Gregory G. Todd	2157	

All participants (applicant, applicant's representative, PTO personnel):

- (1) Gregory G. Todd. (3) \_\_\_\_\_  
 (2) Scott Thorpe. (4) \_\_\_\_\_

Date of Interview: 17 April 2006.

Type: a) ☒ Telephonic b) ☐ Video Conference  
 c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☒ Yes e) ☐ No.  
 If Yes, brief description: Interview Agenda.

Claim(s) discussed: 1.

Identification of prior art discussed: Dunham.

Agreement with respect to the claims f) ☐ was reached. g) ☐ was not reached. h) ☒ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

  
 Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Discussed proposed amendments to the claims as well as some Examiner suggestions for further narrowing the scope of the independent claims. Such proposed amendments and suggestions include a server coordinating access by the client systems via the restore table as well as the 'pulling' of restored data being defined in the claim language. Also agreed that clients 'autonomously' restoring data is not in the claims or specification. Also verified Mr. Thorpe will send a power of attorney (or equivalent) in the next response to the Office.

Telephone Interview Agenda  
Application 10/091,797  
Monday, April 17, 2006 1:00 EDT

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## I Distinctions between present invention and Dunham

### A. Dunham

Teaches a restore server restoring a data file by identifying the target file system, copying the data file to the target file system, and updating the target file system with a meta file associated with the data file so that the data file is properly cataloged on the target file system. Dunham, Fig. 5.

### B. Present Invention

The present invention is distinguished by claiming that the storage management server (restore server) coordinates clients autonomously restoring portions of data. The storage management server tracks the restoration of data portions, allows the clients to access unrestored data portions, and blocks access to restored data portions. Thus the present invention is distinguished by claiming coordinating the pull of restored data, rather than pushing restoration data as taught by Dunham.

? claim

who?

## II Proposed amendment to emphasize distinction

### 1. (Proposed amendment) A method of restoring data in a computer network system

wherein a plurality of client systems have access to a storage pool coupled to an associated storage area network (SAN) comprising the steps of:

who? → requesting a restore wherein each of said plurality of client systems may participate in said restore; and

coordinating access to ~~said~~ data stored in said storage pool by said plurality of client systems by tracking a plurality of data portions of said data to be restored, allowing said plurality of client systems to access said plurality of data portions, and by blocking access to each of said plurality of data portions that have been restored by one of said plurality of client systems to avoid duplicative restoration efforts.

III 37 CFR 1.83(a) objection and 35 USC § 112 rejection amendments

To the specification:

Please replace the paragraph starting on line 67 of page 3 with the following rewritten paragraph:

FIG. 1 is a block diagram of a computer network system including a plurality of client systems with access to a storage pool of a SAN;

Please replace the paragraph starting on line 69 of page 3 with the following rewritten paragraphs:

FIG. 2 is an exemplary master restore table consistent with the present invention;

FIG. 3 is a schematic flow chart diagram illustrating one embodiment of a method of restoring data of the present invention; and

FIG. 4 is a schematic flow chart diagram illustrating one embodiment of a method of coordinating access to stored data of the present invention.

Please replace the paragraph starting on line 110 of page 5 with the following rewritten paragraphs:

Also referencing FIGS. 3 and 4, when a client having appropriate storage software from a client system 103, 115 requests 305 a restore, the server 102 constructs 405 a master restore table associated with that particular restore request. In general, the master restore table includes portions of data to be restored and an associated location of those portions of data in the storage pool 134. As the master restore table is being constructed 405, data restoration efforts may begin without waiting for the table to be completed.

Please replace the paragraph starting on line 116 of page 6 with the following rewritten paragraphs:

Advantageously, as described more fully below with reference to FIG. 2, and with reference to FIG. 3, clients 107, 109, 111 and 117, 119, 121 of a plurality of client systems 103, 115 may participate in a restore effort by utilizing a master restore table to coordinate 310 access to data stored in the storage pool 134 such that duplicative restoration efforts from a plurality of client systems 103, 115 can be avoided.

Please replace the paragraph starting on line 121 of page 6 with the following rewritten paragraphs:

Turning to FIG. 2 and with reference to FIG. 4, an exemplary master restore table 200 consistent with the invention that may be created and temporarily stored in a storage management server 102 or any device common to the system 100 is illustrated. The table 200 generally is used to track 410 portions of data to be restored and the associated restore media from the various storage devices 112, 114, 116 of the storage pool 134 where such portions of data are located. A host of clients 107, 109, 111 and 117, 119, 121 and client systems 103, 115 may be able to access the table 200 to optimize restore efforts from a plurality of client systems 103, 115. Although described in terms of columns and rows, a master restore table consistent with the invention may take a variety of forms.

Please replace the paragraph starting on line 129 of page 6 with the following rewritten paragraphs:

The master restore table 200 may include a plurality of columns including: a first column 202 detailing the portions of data to be restored; a second column 204 detailing the location of such portions of data on associated media from various storage devices 112, 114, 116 of the storage pool 134; a third column 206 detailing a LAN-free path 140, 142 for accessing the associated storage media if such path exists, a fourth column 208 detailing a server-free path 140, 142 for accessing the associated storage media if such path exists, and a fifth column 210 detailing the status of whether an associated storage media has been processed for a given portion of data. Advantageously then, the fifth column tracks 410 the portions of data that have been processed by any one client in any one plurality of client systems 103, 115. In this way, clients or restore processes from any client system 103, 115 would be blocked 415 from restoring a portion of that data that had already been processed or restored. Accordingly, duplicative restoration efforts are automatically avoided.

To the drawings:

FIGS. 1 and 2 are amended with updated page numbering. FIG. 1 is amended to annotate two LAN-free, server-free paths 140, 142. FIG. 3 is added to illustrate a restoring data method of the present invention. FIG. 4 is added to illustrate a coordinating access method of the present invention.